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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,333	01/05/2001	Eric Lukac-Kuruc	COL201	5075
9629	7590	01/28/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

7P

<b>Office Action Summary</b>	<b>Application No.</b> 09/755,333	<b>Applicant(s)</b> LUKAC-KURUC ET AL.	
	<b>Examiner</b> Edith M Chang	<b>Art Unit</b> 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☒ All    b) ☐ Some \*    c) ☐ None of:
    - 1. ☒ Certified copies of the priority documents have been received.
    - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Hence, the MIDI 1.0, document version 95.1 section 2 embedding 2:doc version 4.2, Oct 1994, pages 1 to 3 listed on page 1 lines 20-24; and Atmel Document: ref 1042D-04/99/xM about AT902333 & 4433 microcontrollers, embedded UART pages 44 to 50 listed on page 3 lines 12-16 have not been considered.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Rewrite the abstract within the range of 50 to 150 words in a single paragraph.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "emitter section", "receiver

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section”, “a circuitry”, and “line amplifier” of claims 10 and 11, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 1, 3-4, 6-11 are objected to because of the following informalities:

Claim 1, line 6: “the existing UART” is suggested changing to “an existing Universal Asynchronous Receiver/Transmitter (UART)”; line 7: “the increase” is suggested changing to “an increase”; line 12: “them” is suggested changing to “the bits”; line 14: “the transitions” is

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suggested changing to “the binary transitions” and line 20: “the data bits” is suggested changing to “data bits”, and “of the” is suggested changing to “of”.

Claim 3, “the support” is suggested changing to “the electrical or optical support”.

Claim 4, line 4: “a current” is suggested changing to “the current”.

Claim 6, line 7: “the existing UART” is suggested changing to “an existing Universal Asynchronous Receiver/Transmitter (UART)”; line 8: “the increase” is suggested changing to “an increase”; line 12: “them” is suggested changing to “the bits”; line 14: “the transitions” is suggested changing to “the binary transitions”; and line 20: “MIDI” is suggested changing to “Musical Instruments Digital Interface (MIDI)”.

Claim 10, line 1: “the communication” is suggested changing to “a communication”; line 2: “the transmission” is suggested changing to “a transmission”; line 12: “the state of the art of a first” is suggested changing to “said first”; line 13: “information” is suggested changing to “said information”; line 17: “enlarged” is suggested changing to “second enlarged”; line 18: “the line amplifier” is suggested changing to “a line amplifier”; lines 18-19: “the flow of binary information” is suggested changing to “the flow of information”; line 19: “the message” is suggested changing to “the serial message”; line 20: “them” is suggested changing to “the bits”; line 21: “the transitions” is suggested changing to “transitions”; line 23: “the data bits” is suggested changing to “data bits”; and line 24: “of the” is suggested changing to “of”.

Claim 11, line 1: “the communication” is suggested changing to “a communication” and “the transmission” is suggested changing to “a transmission”; line 12: “the state of the art of a first” is suggested changing to “said first”; line 13: “information” is suggested changing to “said information”; line 17: “enlarged” is suggested changing to “second enlarged”; line 18: “the line

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amplifier” is suggested changing to “a line amplifier”; lines 18-19: “the flow of binary information” is suggested changing to “the flow of information”; line 19: “the message” is suggested changing to “the serial message”; line 20: “them” is suggested changing to “the bits”; line 21: “the transitions” is suggested changing to “transitions”.

Claims 7-9 are dependent on the objected claim 1.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3-4, 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 & 6, line 16: “the half duration point” and line 17: “the unchanged message” lack antecedent bases; line 18: “the message” does not clearly indicate which message it is, the “a serial message” or “the unchanged message”.

Claim 6, lines 20-21: “the message” does not clearly indicate which message it is, the “a serial message” or “the unchanged message”.

Claim 7, line 2: “the message” does not clearly indicate which message it is, the “a serial message” or “the unchanged message”; and “the signal” lacks antecedent basis.

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Claim 8, line 2: "the content of the message" does not clearly indicate which content of the message it is, the content of the "a serial message" or "the unchanged message"; lines 2-3: "the signal" lacks antecedent basis.

Claim 9, lines 3 & 4: "the message" does not clearly indicate which message it is, the "a serial message" or "the unchanged message".

Claims 3-4 are dependent on the rejected claim 1.

***Claim Rejections - 35 USC § 103***

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji et al. (JP 10126818) in view of Westlund (US 5,880,391).

8. Regarding **claim 6**, except explicitly specify the UART and MIDI, Shinji et al. discloses an arrangement and its process for transmission between at least two devices, comprising: means for connection a first device to a second device through an electrical support ([0001] wherein the digital switching machine is connecting two device through an electrical support); means for causing a flow of information between the two devices as elements succeeding each other in time sequence ([0002], FIG.3); each device comprising an emitter section and a receiver section compatible with the state of the art of the first communication standard ([0007] & FIG.1, the convention signal with longer bit period is the first communication standard, the digital switch and the device communicates with the digital switch have the transmitter and receiver section) that generates a serial message coded by means of a time sequence of binary transitions called bits; means for coding information both in the first communication standard and in a second enlarged communication standard ([0019], FIG.1 (b) &

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FIG.2 (b) the circuitry for the second enlarged communication standard) wherein the second enlarged communication standard having the “reduced bits” with shorter time length (as shown in FIG.1 (a) & FIG.2 (a)), in order to insert additional bits whose half duration falls at the moment in time where the transitions between unchanged bits occurred when no additional bits are inserted; keeping the total duration of the message containing the additional bits identical to the total length of the unchanged message (FIG.1 & FIG.2 in one frame CH1); keeping the half duration point of all reduced data bits to the same place as they were in the unchanged message (FIG.2).

However Westlund teaches the music sequencer controller (FIG.1) checking the MIDI from the interface circuit (13 FIG.1) therein the AUART portion of the interface has the MIDI character (column 6 lines 32-34) as shown in the flowchart FIG.2 and FIG.3, wherein the FIG.3 is the detail of the routine 60 in FIG.2, as Shinji et al.’s method used in the interface connection of the time division switch, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the UART and MIDI digital signal in the Shinji et al.’s circuit system circuit interface connection method to provide an improved time division switch signal to the musical instrument for the purpose of the generation of musical accompaniment at the start of a music measure (column 2 lines 12-17).

***Allowable Subject Matter***

9. Claims 10 and 11 would be allowable if rewritten to overcome the objections in the paragraph 4 of this Office action.



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10. Claims 1, 3-4, 7-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest, alone or in a combination, among other things, at least a process for transmission of information in an existing UART system and its arrangement as a whole, the combination of elements and features, which includes the reduced data bits being reduced by 50% and the reduced stop and start bits reduced by 25%; keeping the half duration of all reduced bits to the same place as they were in the unchanged message wherein the bits are not reduced; keeping the total duration of the message with the reduced bits and additional insertion bits as the total duration of the message with no reduced bits, the message coded according to the MIDI standard and UART standard.

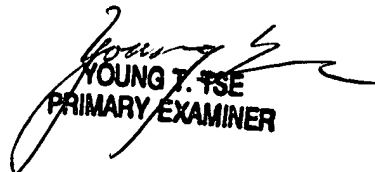
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
January 18, 2005

  
YOUNG T. TSE  
PRIMARY EXAMINER